REMARKS

Claims 1-25 are pending in this application and stand rejected. Claims 1, 6-8, 11-15 and 20-22 have been amended and new Claims 26-28 are submitted for consideration by the Examiner. Reconsideration and allowance of this application are respectfully requested.

Claims 20-22 have been amended. Applicants respectfully submit that this amendment overcomes the rejections under 35 U.S.C. 112.

The rejection of Claims 1-6, 11, 12, 15-21, 23 and 25 under 35 U.S.C. 102(b) as being anticipated by Naito (U.S.P.N. 5,536,588), is respectfully traversed.

Naito discloses raising the glass transition temperature of a polymer by adding dye molecules having a relatively high glass transition temperature (e.g., refer to Col. 4, Lines 29-31, Col. 3, Lines 58-61 and Claim 3 of Naito wherein the glass transition temperature of the dye molecules is 170C which is equal to/greater than polycarbonate). In contrast, the instant invention can increase the glass transition temperature of a photoactive material by adding a polymer having a relatively high glass transition temperature. The instant invention permits using photoactive materials which heretofore were unacceptable for use in photovoltaic applications due to their relatively low glass transition temperature. Applicants, therefore, respectfully submit that Naito cannot anticipate each and every aspect of the claimed invention and request withdrawal of this rejection.

The rejection of Claims 1 and 23-25 under 35 U.S.C. 102(b) as being anticipated by Shiratsuchi et al. (U.S.P.N. 6,084,176), is respectfully traversed.

While Shiratsuchi discloses using a polymer as a binder for hole transporting compounds, the polymer is not employed with a photoactive material comprising a light harvesting organic material. As a result, Shiratsuchi does not disclose each and every aspect of the claimed invention and, accordingly, cannot anticipate the claimed invention.

The rejection of Claims 13 and 14 under 35 U.S.C. 103(a) as being unpatentable over 35 U.S.C. 103(a) over Naito, is respectfully traversed.

The high glass transition temperature dye molecules of Naito teach away from relatively low glass transition temperature photoactive materials. Naito, therefore, fails to establish a prima facie case of obviousness and Applicants respectfully request withdrawal of this rejection.

The rejection of Claims 7-10 under 35 U.S.C. 103(a) as being unpatentable over Naito in view of Burgoyne, Jr. (U.S.P.N. 6,060,170), is respectfully traversed.

Applicants respectfully submit that in the absence of the instant disclosure there would be motivation to combine Naito with Burgoyne. Naito does not disclose that the type of polymers disclosed by Burgoyne are compatible with his dye molecules and Burgoyne does not disclose that his polymers can be combined with Naito's dye molecules. The disclosure that Burgoyne's polymers can be used in semiconductor devices does not automatically suggest using such polymers with the high glass transition dye molecules of Naito. Indeed, the high glass transition dye molecules of Naito are more likely to suggest that adding a high glass transition polymer is unnecessary and redundant. For these reasons, Applicants respectfully submit that Naito and Burgoyne cannot be properly combined in order to establish a prima facie case of obviousness.

Applicants believe that the pending claims define patentable subject matter and request issuance of a Notice of Allowance. Please find attached hereto a Petition for a Two Month Extension of Time. Should there be any other fee due in connection with this Application, please charge the same to Deposit Account No. 01-0493 (Air Products). Should the Examiner deem that any action on the part of Applicants would advance prosecution, the Examiner is invited to telephone Applicants' attorney.

Respectfully Submitted,

Michael K. Boyer
U.S. P.T.O. Reg No 33,085
Attorney for Applicants
Tel: 610 481-3479
Fax: 610 481-7083
Email: boyermk@airproducts.com

Encl.: Petition for a Two Month Extension of Time
Fee Determination